



**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Student Practice Test Booklet
2008**

Grade 8

Science

Student Name: _____

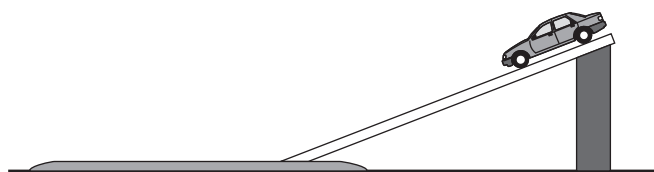
School Name: _____

Science

Answer questions 1 through 9 on page 2 in your Student Answer Booklet.

- 1 For a given substance, which statement is correct?
- A. Density increases as volume increases.
 - B. Density increases as mass increases.
 - C. Density is not related to mass or volume.
 - D. Density remains constant as volume and mass change.

- 2 A student sets up the experiment shown below to investigate how friction affects the motion of a toy car.



The student releases the car down the ramp and measures how far the car travels. Which variable **must** the student change to test how friction affects the motion of the car?

- A. the height of the ramp
- B. the length of the ramp
- C. the position of the car on the ramp
- D. the surface at the bottom of the ramp

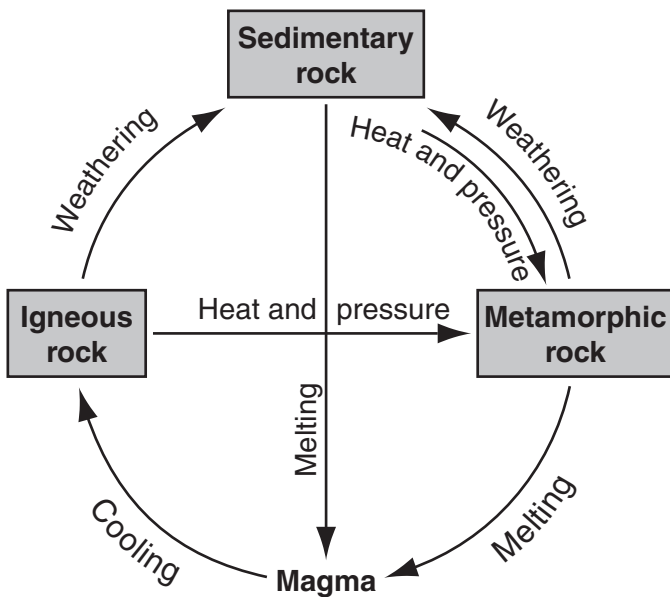
- 3 Which molecule represents an element?
- A. bromine gas (Br_2)
 - B. carbon dioxide (CO_2)
 - C. hydrogen fluoride (HF)
 - D. sodium chloride (NaCl)

- 4 Some scientific studies indicate that Earth's average temperature has increased 0.6°C in the past 100 years.

What will be the **most likely** effect of the change in temperature?

- A. increased landmasses
- B. increased earthquakes
- C. increased glacial melting
- D. increased volcanic activity

- 5 The diagram below shows the rock cycle.



Which conclusion is **best** supported by this diagram?

- A. All rocks are made of minerals.
 - B. All rocks can change into other types of rocks.
 - C. Igneous rocks are formed from heat and pressure.
 - D. The formation of sedimentary rocks involves heat and pressure.
- 6 In the 1600s, Galileo used a telescope to make scientific observations of the night sky. How did this use of technology improve our understanding of the solar system?
- A. by allowing closer examination of the Moon's surface
 - B. by helping scientists accurately calculate the distance between galaxies
 - C. by helping scientists name the planets in the solar system
 - D. by providing new evidence to support the Big Bang Theory

- 7 How does a plant use energy from the Sun?

- A. to obtain heat from the soil through its roots
- B. to produce sugar molecules in its roots
- C. to produce sugar molecules in its leaves
- D. to obtain heat from the surface of its leaves to break down sugar molecules

- 8 A student hypothesizes that tall parents produce tall offspring. In addition to the heights of the tall parents and the offspring, which other information does the student need to support his hypothesis?

- A. the number of offspring produced
- B. the ages of the offspring when their heights are measured
- C. the time of year when the offspring's heights are measured
- D. the weights of the offspring when their heights are measured

- 9 The table below shows how different water temperatures affect the annual number of eggs one type of fish produces.

Effects of Water Temperature on Annual Reproduction of One Type of Fish

Water Temperature (°C)	Percent of Females That Produced Eggs	Number of Times Females Deposited Eggs	Total Number of Eggs Produced
8	100	23	599,000
10	100	17	323,000
12	67	3	26,000

Which statement predicts the effect warmer water temperatures would **most likely** have on this type of fish?

- A. The fish would quickly adjust to the new temperatures.
- B. The fish population would decline over time.
- C. The fish would lay eggs more often to produce enough eggs.
- D. The fish population would produce more females than males.

Answer question 10 on page 2 in your Student Answer Booklet.

- 10** Weathering and erosion are processes that change features on Earth's surface.
- Identify **one** type of weathering and **one** type of erosion that occur in New England.
 - Explain how the types of weathering and erosion you identified in part (a) change land features.

